

SEQUENCE LISTING

<110> OWMAN, CHRISTER <120> HEPTAHELIX RECEPTOR AND ITS USE AS LEUKOTRIENE B4 RECEPTOR <130> 07675.0001-03 SEQUENCE LISTING <140> 09/893,512 <141> 2001-06-29 <150> 60/061,789 <151> 1997-10-14 <150> 60/081,958 <151> 1998-04-15 <150> 09/170,069 <151> 1998-10-13 <160> 16 <170> PatentIn Ver. 2.1 <210> 1 <211> 1672 <212> DNA <213> Homo sapiens <400> 1 acctgctact tgaaggccac acccagcctc tcactccctt accttcctct tcctctctca 60 ctgctccttc ctggtctctt ctcatctggc cccacctcta aggcgtcctc ctgccttctg 120 ggttgccctg gaaaacagac tatccccct cctagtgaag ggagtgggta ggggtttcag 180 coccaccete aggaagatge gtetteeetg teetetgete tgtggtaett cetetetgge 240 tgatttagca aacagcacct agacctgggc caggcctttg gcagtgggac agatccaggg 300 ataggetaca ecaceetgee etgaceetgg gattggeate agetteeaac eagtteetge 360 caaagcttgt aaggteetee egaeggeeat gaacactaca tettetgeag caececete 420 actaggtgta gagttcatct ctctgctggc tatcatcctg ctgtcagtgg cgctggctgt 480 ggggcttccc ggcaacagct ttgtggtgtg gagtatcctg aaaaggatgc agaagcgctc 540 tgtcactgcc ctgatggtgc tgaacctggc cctggccgac ctggccgtat tgctcactgc 600 tecettttte etteaettee tggeecaagg eacetggagt titggaetgg etggttgeeg 660 cetgtgtcac tatgtctgcg gagtcagcat gtacgccagc gtcctgctta tcacggccat 720 gagtctagac cgctcactgg cggtggcccg cccctttgtg tcccagaagc tacgcaccaa 780 ggcgatggcc cggcgggtgc tggcaggcat ctgggtgttg tcctttctgc tggccacacc 840

cgtcctcgcg taccgcacag tagtgccctg gaaaacgaac atgagcctgt gcttcccgcg 900 gtaccccagc gaagggcacc gggccttcca tctaatcttc gaggctgtca cgggcttcct 960 gctgcccttc ctggctgtgg tggccagcta ctcggacata gggcgtcggc tacaggcccg 1020 gegetteege egeageege geaceggeeg cetggtggt eteateatee tgacetteege 1080 egeettetgg etgeeetace acgtggtgaa eetggetgag gegggeegeg egetggeegg 1140 eeaggeegee gggttaggge tegtggggaa geggetgage etggeeegea acgtgeteat 1200 egeactegee tteetgagea geagegtgaa eeeegtgetg taegegtgeg eeggeggegg 1260 eetgetgeege teggeggegg tgggetteegt egeeaagetg etggagggea egggeteega 1320 ggegteeage acgegeegeg ggggeageet gggeeagaee getaggagge geeeegeege 1380 tetggaggee ggeeetteeg agageeteae tgeeteeage eeteteaagt taaaegaaet 1440 gaactaggee tgggtgaagg aggegeaett teeteetgge agaatgetag etetgageea 1500 gtteagtace tggaggaga geagggegt ggagggegtg gagggegtg gagegtgga 1560 ggegggagtg gagtggaaga agagggagag gtggageaaa gtgagggeeg agtgagageg 1620 tgeteeage tggeteeae aggeagett aaeceattaaa actgaagtet ga 1672

<210> 2

<211> 352

<212> PRT

<213> Homo sapiens

<400> 2

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D7

Ile Ser Leu Leu Ala Ile Ile Leu Leu Ser Val Ala Leu Ala Val Gly
20 25 30

Leu Pro Gly Asn Ser Phe Val Val Trp Ser Ile Leu Lys Arg Met Gln
35 40 45

Lys Arg Ser Val Thr Ala Leu Met Val Leu Asn Leu Ala Leu Ala Asp 50 55 60

Leu Ala Val Leu Leu Thr Ala Pro Phe Phe Leu His Phe Leu Ala Gln 65 70 75 80

Gly Thr Trp Ser Phe Gly Leu Ala Gly Cys Arg Leu Cys His Tyr Val 85 90 95

Cys Gly Val Ser Met Tyr Ala Ser Val Leu Leu Ile Thr Ala Met Ser 100 105 110

Leu Asp Arg Ser Leu Ala Val Ala Arg Pro Phe Val Ser Gln Lys Leu 115 120 125

Arg Thr Lys Ala Met Ala Arg Arg Val Leu Ala Gly Ile Trp Val Leu 130 135 140

Ser Phe Leu Leu Ala Thr Pro Val Leu Ala Tyr Arg Thr Val Val Pro 145 150 155 160

Trp Lys Thr Asn Met Ser Leu Cys Phe Pro Arg Tyr Pro Ser Glu Gly
165 170 175

His Arg Ala Phe His Leu Ile Phe Glu Ala Val Thr Gly Phe Leu Leu 180 185 190

Pro Phe Leu Ala Val Val Ala Ser Tyr Ser Asp Ile Gly Arg Arg Leu 195 200 205

Gln Ala Arg Arg Phe Arg Arg Ser Arg Arg Thr Gly Arg Leu Val Val 210 215 220

Leu Ile Ile Leu Thr Phe Ala Ala Phe Trp Leu Pro Tyr His Val Val 225 230 235 240

Asn Leu Ala Glu Ala Gly Arg Ala Leu Ala Gly Gln Ala Ala Gly Leu 245 250 255

Gly Leu Val Gly Lys Arg Leu Ser Leu Ala Arg Asn Val Leu Ile Ala 260 265 270

Leu Ala Phe Leu Ser Ser Ser Val Asn Pro Val Leu Tyr Ala Cys Ala 275 280 285

Gly Gly Leu Leu Arg Ser Ala Gly Val Gly Phe Val Ala Lys Leu 290 295 300

Leu Glu Gly Thr Gly Ser Glu Ala Ser Ser Thr Arg Arg Gly Gly Ser 305 310 315 320

Leu Gly Gln Thr Ala Arg Ser Gly Pro Ala Ala Leu Glu Pro Gly Pro 325 330 335

Ser Glu Ser Leu Thr Ala Ser Ser Pro Leu Lys Leu Asn Glu Leu Asn 340 345 350

<210> 3

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens
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akgwagwagg gcagccagca gassrygaa
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<211> 48
<212> DNA
<213> Homo sapiens
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acacaggagg caaccagcca gtccaaaact ccaggtgcct tgggccag
                                                                    48
<210> 6
<211> 48
<212> DNA
<213> Homo sapiens
<400> 6
gateggtgcc ageaecegee gggeeatege ettggtgcgt agettetg
                                                                    48
<210> 7
<211> 8
<212> PRT
<213> Homo sapiens
<220>
<221> VARIANT
<222> (3)
<223> Xaa at position 3 is any amino acid
<400> 7
Gly Asn Xaa Leu Val Val Leu Val
  1
<210> 8
<211> 18
<212> PRT
<213> Homo sapiens
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<220>
<221> VARIANT
<222> (6)
<223> Xaa at position 6 is any amino acid
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<221> VARIANT
<222> (7)
<223> Xaa at position 7 is any amino acid
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<221> VARIANT
<222> (12)
<223> Xaa at position 12 is any amino acid
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<221> VARIANT
<222> (13)
<223> Xaa at position 13 is any amino acid
<220>
<221> VARIANT
<222> (17)
<223> Xaa at position 17 is any amino acid
<400> 8
Leu Leu Asn Leu Ala Xaa Xaa Asp Leu Leu Phe Xaa Xaa Thr Leu Pro
Xaa Trp
<210> 9
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<212> PRT
<213> Homo sapiens
<400> 9
Met Ser Asn Ile Thr Asp Pro Gln Met Trp Asp Phe Asp Asp Leu Asn
                                      10
Phe Thr Gly Met Pro Pro Ala Asp Glu Asp Tyr Ser Pro Cys Met Leu
             20
                                  25
Glu Thr Glu Thr Leu Asn Lys Tyr Val Val Ile Ile Ala Tyr Ala Leu
                              40
                                                  45
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Val Phe Leu Leu Ser Leu Leu Gly Asn Ser Leu Val Met Leu Val Ile Leu Tyr Ser Arg Val Gly Arg Ser Val Thr Asp Val Tyr Leu Leu Asn Leu Ala Leu Ala Asp Leu Leu Phe Ala Leu Thr Leu Pro Ile Trp Ala Ala Ser Lys Val Asn Gly Trp Ile Phe Gly Thr Phe Leu Cys Lys Val Val Ser Leu Leu Lys Glu Val Asn Phe Tyr Ser Gly Ile Leu Leu Leu Ala Cys Ile Ser Val Asp Arg Tyr Leu Ala Ile Val His Ala Thr Arg Thr Leu Thr Gln Lys Arg His Leu Val Lys Phe Val Cys Leu Gly Cys Trp Gly Leu Ser Met Asn Leu Ser Leu Pro Phe Phe Leu Phe Arg Gln Ala Tyr His Pro Asn Asn Ser Ser Pro Val Cys Tyr Glu Val Leu Gly Asn Asp Thr Ala Lys Trp Arg Met Val Leu Arg Ile Leu Pro His Thr Phe Gly Phe Ile Val Pro Leu Phe Val Met Leu Phe Cys Tyr Gly Phe Thr Leu Arg Thr Leu Phe Lys Ala His Met Gly Gln Lys His Arg Ala Met Arg Val Ile Phe Ala Val Val Leu Ile Phe Leu Cys Trp Leu Pro Tyr Asn Leu Val Leu Leu Ala Asp Thr Leu Met Arg Thr Gln Val Ile Gln Glu Thr Cys Glu Arg Arg Asn Asn Ile Gly Arg Ala Leu Asp Ala Thr Glu Ile Leu Gly Phe Leu His Ser Cys Leu Asn Pro Ile Ile

Tyr Ala Phe Ile Gly Gln Asn Phe Arg His Gly Phe Leu Lys Ile Leu 305 310 315 320

Ala Met His Gly Leu Val Ser Lys Glu Phe Leu Ala Arg His Arg Val 325 330 335

Thr Ser Tyr Thr Ser Ser Ser Val Asn Val Ser Ser Asn Leu 340 345 350

<210> 10

<211> 355

<212> PRT

<213> Homo sapiens

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Met Glu Ser Asp Ser Phe Glu Asp Phe Trp Lys Gly Glu Asp Leu Ser 1 5 10 15

Asn Tyr Ser Tyr Ser Ser Thr Leu Pro Pro Phe Leu Leu Asp Ala Ala 20 25 30

Pro Cys Glu Pro Glu Ser Leu Glu Ile Asn Lys Tyr Phe Val Val Ile 35 40 45

Ile Tyr Ala Leu Val Phe Leu Leu Ser Leu Leu Gly Asn Ser Leu Val 50 55 60

Met Leu Val Ile Leu Tyr Ser Arg Val Gly Arg Ser Val Thr Asp Val 65 70 75 80

Tyr Leu Leu Asn Leu Ala Leu Ala Asp Leu Leu Phe Ala Leu Thr Leu 85 90 95

Pro Ile Trp Ala Ala Ser Lys Val Asn Gly Trp Ile Phe Gly Thr Phe 100 105 110

Leu Cys Lys Val Val Ser Leu Leu Lys Glu Val Asn Phe Tyr Ser Gly
115 120 125

Ile Leu Leu Leu Ala Cys Ile Ser Val Asp Arg Tyr Leu Ala Ile Val 130 135 140

His Ala Thr Arg Thr Leu Thr Gln Lys Arg Tyr Leu Val Lys Phe Ile 145 150 155 160

Cys Leu Ser Ile Trp Gly Leu Ser Leu Leu Leu Ala Leu Pro Val Leu

165 170 175

Leu Phe Arg Arg Thr Val Tyr Ser Ser Asn Val Ser Pro Ala Cys Tyr 180 185 190

Glu Asp Met Gly Asn Asn Thr Ala Asn Trp Arg Met Leu Leu Arg Ile 195 200 205

Leu Pro Gln Ser Phe Gly Phe Ile Val Pro Leu Leu Ile Met Leu Phe 210 215 220

Cys Tyr Gly Phe Thr Leu Arg Thr Leu Phe Lys Ala His Met Gly Gln 225 230 235 240

Lys His Arg Ala Met Arg Val Ile Phe Ala Val Val Leu Ile Phe Leu 245 250 255

Leu Cys Trp Leu Pro Tyr Asn Leu Val Leu Leu Ala Asp Thr Leu Met 260 265 270

Arg Thr Gln Val Ile Gln Glu Thr Cys Glu Arg Arg Asn His Ile Asp 275 280 285

Arg Ala Leu Asp Ala Thr Glu Ile Leu Gly Ile Leu His Ser Cys Leu 290 295 300

Asn Pro Leu Ile Tyr Ala Phe Ile Gly Gln Lys Phe Arg His Gly Leu 305 310 315 320

Leu Lys Ile Leu Ala Ile His Gly Leu Ile Ser Lys Asp Ser Leu Pro 325 330 335

Lys Asp Ser Arg Pro Ser Phe Val Gly Ser Ser Ser Gly His Thr Ser 340 345 350

Thr Thr Leu 355

<210> 11

<211> 355

<212> PRT

<213> Homo sapiens

<400> 11

Met Glu Thr Pro Asn Thr Thr Glu Asp Tyr Asp Thr Thr Thr Glu Phe

1 5 10 15

Asp	Tyr	Gly	Asp 20	Ala	Thr	Pro	Cys	Gln 25		Val	Asn	Glu	Arg 30	Ala	Phe
Gly	Ala	Gln 35		Leu	Pro	Pro	Leu 40		Ser	Leu	Val	Phe 45	Val	Ile	Gly
Leu	Val 50	Gly	Asn	Ile	Leu	Val 55	Val	Leu	Val	Leu	Val 60	Gln	Tyr	Lys	Arg
Leu 65	Lys	Asn	Met	Thr	Ser 70	Ile	Tyr	Leu	Leu	Asn 75	Leu	Ala	Ile	Ser	Asp 80
Leu	Leu	Phe	Leu	Phe 85	Thr	Leu	Pro	Phe	Trp 90	Ile	Asp	Tyr	Lys	Leu 95	Lys
Asp	Asp	Trp	Val 100	Phe	Gly	Asp	Ala	Met 105	Cys	Lys	Ile	Leu	Ser 110	Gly	Phe
Tyr	Tyr	Thr 115	Gly	Leu	Tyr	Ser	Glu 120	Ile	Phe	Phe	Ile	Ile 125	Leu	Leu	Thr
Ile	Asp 130	Arg	Tyr	Leu	Ala	Ile 135	Val	His	Ala	Val	Phe 140	Ala	Leu	Arg	Ala
Arg 145	Thr	Val	Thr	Phe	Gly 150	Val	Ile	Thr	Ser	Ile 155	Ile	Ile	Trp	Ala	Leu 160
Ala	Ile	Leu	Ala	Ser 165	Met	Pro	Gly	Leu	Tyr 170	Phe	Ser	Lys	Thr	Gln 175	Trp
Glu	Phe	Thr	His 180	His	Thr	Cys	Ser	Leu 185	His	Phe	Pro	His	Glu 190	Ser	Leu
Arg	Glu	Trp 195	Lys	Leu	Phe	Gln	Ala 200	Leu	Lys	Leu	Asn	Leu 205	Phe	Gly	Leu
Val	Leu 210	Pro	Leu	Leu	Val	Met 215	Ile	Ile	Cys	Tyr	Thr 220	Gly	Ile	Ile	Lys
Ile 225	Leu	Leu	Arg	Arg	Pro 230	Asn	Glu	Lys	Lys	Ser 235	Lys	Ala	Val	Arg	Leu 240
Ile	Phe	Val	Ile	Met 245	Ile	Ile	Phe	Phe	Leu 250	Phe	Trp	Thr	Pro	Tyr 255	Asn
Leu	Thr	Ile	Leu 260	Ile	Ser	Val	Phe	Gln 265	Asp	Phe	Leu	Phe	Thr 270	His	Glu

D7

Cys Glu Gln Ser Arg His Leu Asp Leu Ala Val Gln Val Thr Glu Val Ile Ala Tyr Thr His Cys Cys Val Asn Pro Val Ile Tyr Ala Phe Val Gly Glu Arg Phe Arg Lys Tyr Leu Arg Gln Leu Phe His Arg Arg Val Ala Val His Leu Val Lys Trp Leu Pro Phe Leu Ser Val Asp Arg Leu Glu Arg Val Ser Ser Thr Ser Pro Ser Thr Gly Glu His Glu Leu Ser Ala Gly Phe <210> 12 <211> 379 <212> PRT <213> Homo sapiens <400> 12 Pro Glu Pro Met Glu Thr Pro Asn Thr Thr Glu Asp Tyr Asp Thr Thr Thr Glu Phe Asp Tyr Gly Asp Ala Thr Pro Cys Gln Lys Val Asn Glu Arg Ala Phe Gly Ala Gln Leu Leu Pro Pro Leu Tyr Ser Leu Val Phe Val Ile Gly Leu Val Pro Glu Pro Gly Asn Ile Leu Val Val Leu Val Leu Val Gln Tyr Lys Arg Leu Lys Asn Met Thr Ser Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Phe Thr Leu Pro Phe Trp Ile Asp Tyr Lys Leu Lys Asp Asp Trp Val Pro Glu Pro Phe Gly Asp

Ala Met Cys Lys Ile Leu Ser Gly Phe Tyr Tyr Thr Gly Leu Tyr Ser

Glu Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His Ala Val Phe Ala Leu Arg Ala Arg Thr Val Thr Phe Gly Pro Glu Pro Val Ile Thr Ser Ile Ile Ile Trp Ala Leu Ala Ile Leu Ala Ser Met Pro Gly Leu Tyr Phe Ser Lys Thr Gln Trp Glu Phe Thr His His Thr Cys Ser Leu His Phe Pro His Glu Ser Leu Arg Glu Trp Lys Leu Phe Gln Ala Pro Glu Pro Leu Lys Leu Asn Leu Phe Gly Leu Val Leu Pro Leu Leu Val Met Ile Ile Cys Tyr Thr Gly Ile Ile Lys Ile Leu Leu Arg Arg Pro Asn Glu Lys Lys Ser Lys Ala Val Arg Leu Ile Phe Val Ile Met Ile Ile Phe Phe Leu Pro Glu Pro Phe Trp Thr Pro Tyr Asn Leu Thr Ile Leu Ile Ser Val Phe Gln Asp Phe Leu Phe Thr His Glu Cys Glu Gln Ser Arg His Leu Asp Leu Ala Val Gln Val Thr Glu Val Ile Ala Tyr Thr His Cys Cys Val Asn Pro Val Ile Pro Glu Pro Tyr Ala Phe Val Gly Glu Arg Phe Arg Lys Tyr Leu Arg Gln Leu Phe His Arg Arg Val Ala Val His Leu Val Lys Trp Leu Pro Phe Leu Ser Val Asp Arg Leu Asp Arg Val Ser Ser Thr Ser Pro Ser Thr Gly Glu His Glu Pro Glu Pro Leu Ser Ala Gly Phe

<210> 13

<211> 374

<212> PRT

<213> Homo sapiens

<400> 13

Met Leu Ser Thr Ser Arg Ser Arg Phe Ile Arg Asn Thr Asn Glu Ser 1 5 10 15

Gly Glu Glu Val Thr Thr Phe Phe Asp Tyr Asp Tyr Gly Ala Pro Cys
20 25 30

His Lys Phe Asp Val Lys Gln Ile Gly Ala Gln Leu Leu Pro Pro Leu 35 40 45

Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val 50 55 60

Leu Ile Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr
65 70 75 80

Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Ile Thr Leu Pro 85 90 95

Leu Trp Ala His Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met 100 105 110

Cys Lys Leu Phe Thr Gly Leu Tyr His Ile Gly Tyr Phe Gly Gly Ile 115 120 125

Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His 130 135 140

Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe Gly Val Val Thr 145 150 155 160

Ser Val Ile Thr Trp Leu Val Ala Val Phe Ala Ser Val Pro Gly Ile 165 170 175

Ile Phe Thr Lys Cys Gln Lys Glu Asp Ser Val Tyr Val Cys Gly Pro 180 185 190

Tyr Phe Pro Arg Gly Trp Asn Asn Phe His Thr Ile Met Arg Asn Ile 195 200 205

Leu Gly Leu Val Leu Pro Leu Leu Ile Met Val Ile Cys Tyr Ser Gly

210 215 220

Ile Leu Lys Thr Leu Leu Arg Cys Arg Asn Glu Lys Lys Arg His Arg 225 230 235 240

Ala Val Arg Val Ile Phe Thr Ile Met Ile Val Tyr Phe Leu Phe Trp 245 250 255

Thr Pro Tyr Asn Ile Val Ile Leu Leu Asn Thr Phe Gln Glu Phe Phe 260 265 270

Gly Leu Ser Asn Cys Glu Ser Thr Ser Gln Leu Asp Gln Ala Thr Gln 275 280 285

Val Thr Glu Thr Leu Gly Met Thr His Cys Cys Ile Asn Pro Ile Ile 290 295 300

Tyr Ala Phe Val Gly Glu Lys Phe Arg Ser Leu Phe His Ile Ala Leu 305 310 315 320

Gly Cys Arg Ile Ala Pro Leu Gln Lys Pro Val Cys Gly Gly Pro Gly 325 330 335

Val Arg Pro Gly Lys Asn Val Lys Val Thr Thr Gln Gly Leu Leu Asp 340 345 350

Gly Arg Gly Lys Gly Lys Ser Ile Gly Arg Ala Pro Glu Ala Ser Leu 355 360 365

Gln Asp Lys Glu Gly Ala 370

<210> 14

<211> 384

<212> PRT

<213> Homo sapiens

<400> 14

Pro Glu Pro Met Leu Ser Thr Ser Arg Ser Arg Phe Ile Arg Asn Thr
1 5 10 15

Asn Glu Ser Gly Glu Glu Val Thr Thr Phe Phe Asp Tyr Asp Tyr Gly
20 25 30

Ala Pro Cys His Lys Phe Asp Val Lys Gln Ile Gly Ala Gln Leu Leu 35 40 45

Pro Pro Leu Tyr Ser Pro Glu Pro Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val Leu Ile Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Ile Thr Leu Pro Leu Trp Ala His Pro Glu Pro Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met Cys Lys Leu Phe Thr Gly Leu Tyr His Ile Gly Tyr Phe Gly Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His Ala Val Phe Ala Leu Lys Pro Glu Pro Ala Arg Thr Val Thr Phe Gly Val Val Thr Ser Val Ile Thr Trp Leu Val Ala Val Phe Ala Ser Val Pro Gly Ile Ile Phe Thr Lys Cys Gln Lys Glu Asp Ser Val Tyr Val Cys Gly Pro Tyr Phe Pro Arg Gly Trp Asn Asn Pro Glu Pro Phe His Thr Ile Met Arg Asn Ile Leu Gly Leu Val Leu Pro Leu Leu Ile Met Val Ile Cys Tyr Ser Gly Ile Leu Lys Thr Leu Leu Arg Cys Arg Asn Glu Lys Lys Arg His Arg Ala Val Arg Val Ile Phe Thr Ile Met Ile Pro Glu Pro Val Tyr Phe Leu Phe Trp Thr Pro Tyr Asn Ile Val Ile Leu Leu Asn Thr Phe Gln Glu

Phe Phe Gly Leu Ser Asn Cys Glu Ser Thr Ser Gln Leu Asp Gln Ala

Thr Gln Val Thr Glu Thr Leu Gly Met Thr His Cys Cys Ile Pro Glu 320

Pro Asn Pro Ile Ile Tyr Ala Phe Val Gly Glu Lys Phe Arg Arg Tyr 335

Leu Ser Val Phe Phe Arg Lys His Ile Thr Lys Arg Phe Cys Lys Gln 340

Cys Pro Val Phe Tyr Arg Glu Thr Val Asp Gly Val Thr Ser Thr Asn 355

Thr Pro Ser Pro Glu Pro Thr Gly Glu Gln Glu Val Ser Ala Gly Leu

380

375

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<400> 15

370

Met Asn Ser Phe Asn Tyr Thr Thr Pro Asp Tyr Gly His Tyr Asp Asp 1 5 10 15

Lys Asp Thr Leu Asp Leu Asn Thr Pro Val Asp Lys Thr Ser Asn Thr 20 25 30

Leu Arg Val Pro Asp Ile Leu Ala Leu Val Ile Phe Ala Val Val Phe 35 40 45

Leu Val Gly Val Leu Gly Asn Ala Leu Val Val Trp Val Thr Ala Phe 50 55 60

Glu Ala Lys Arg Thr Ile Asn Ala Ile Trp Phe Leu Asn Leu Ala Val 65 70 75 80

Ala Asp Phe Leu Ser Cys Leu Ala Leu Pro Ile Leu Phe Thr Ser Ile 85 90 95

Val Gln His His Trp Pro Phe Gly Gly Ala Ala Cys Ser Ile Leu 100 105 110

Pro Ser Leu Ile Leu Leu Asn Met Tyr Ala Ser Ile Leu Leu Leu Ala 115 120 125 Thr Ile Ser Ala Asp Arg Phe Leu Leu Val Phe Lys Pro Ile Trp Cys 130 135 140

Trp Gly Leu Ala Leu Leu Thr Ile Pro Ser Phe Leu Tyr Arg Val $165 \hspace{1.5cm} 170 \hspace{1.5cm} 175$

Val Arg Glu Glu Tyr Phe Pro Pro Lys Val Leu Cys Gly Val Asp Tyr 180 185 190

Ser His Asp Lys Arg Arg Glu Arg Ala Val Ala Ile Val Arg Leu Val 195 200 205

Leu Gly Phe Leu Trp Pro Leu Leu Thr Leu Thr Ile Cys Tyr Thr Phe 210 215 220

Ile Leu Leu Arg Thr Trp Ser Arg Arg Ala Thr Arg Ser Thr Lys Thr 225 230 235 240

Leu Lys Val Val Val Ala Val Val Ala Ser Phe Phe Ile Phe Trp Leu 245 250 255

Pro Tyr Gln Val Thr Gly Ile Met Met Ser Phe Leu Glu Pro Ser Ser 260 265 270

Pro Thr Phe Leu Leu Leu Asn Lys Leu Asp Ser Leu Cys Val Ser Phe 275 280 285

Ala Tyr Ile Asn Cys Cys Ile Asn Pro Ile Ile Tyr Val Val Ala Gly 290 295 300

Gln Gly Phe Gln Gly Arg Leu Arg Lys Ser Leu Pro Ser Leu Leu Arg 305 310 315 320

Asn Val Leu Thr Glu Glu Ser Val Val Arg Glu Ser Lys Ser Phe Thr 325 330 335

Arg Ser Thr Val Asp Thr Met Ala Gln Lys Thr Gln Ala Val \$340\$ \$345\$

<210> 16

<211> 351

<212> PRT

<213> Homo sapiens

<400> 16 Met Glu Thr Asn Ser Ser Leu Pro Thr Asn Ile Ser Gly Gly Thr Pro Ala Val Ser Ala Gly Tyr Leu Phe Leu Asp Ile Ile Thr Tyr Leu Val Phe Ala Val Thr Phe Val Leu Gly Val Leu Gly Asn Gly Leu Val Ile Trp Val Ala Gly Phe Arg Met Thr His Thr Val Thr Thr Ile Ser Tyr Leu Asn Leu Ala Val Ala Asp Phe Cys Phe Thr Ser Thr Leu Pro Phe Phe Met Val Arg Lys Ala Met Gly Gly His Trp Pro Phe Gly Trp Phe Leu Cys Lys Phe Leu Phe Thr Ile Val Asp Ile Asn Leu Phe Gly Ser Val Phe Leu Ile Ala Leu Ile Ala Leu Asp Arg Cys Val Cys Val Leu His Pro Val Trp Thr Gln Asn His Arg Thr Val Ser Leu Ala Lys Lys Val Ile Ile Gly Pro Trp Val Met Ala Leu Leu Leu Thr Leu Pro Val Ile Ile Arg Val Thr Thr Val Pro Gly Lys Thr Gly Thr Val Ala Cys Thr Phe Asn Phe Ser Pro Trp Thr Asn Asp Pro Lys Glu Arg Ile Asn

Val Ala Val Ala Met Leu Thr Val Arg Gly Ile Ile Arg Phe Ile Ile

Gly Phe Ser Ala Pro Met Ser Ile Val Ala Val Ser Tyr Gly Leu Ile

Ala Thr Lys Ile His Lys Gln Gly Leu Ile Lys Ser Ser Arg Pro Leu

Arg Val Leu Ser Phe Val Ala Ala Ala Phe Phe Leu Cys Trp Ser Pro

245

250

255

Tyr Gln Val Val Ala Leu Ile Ala Thr Val Arg Ile Arg Glu Leu Leu 260 265 270

Gln Gly Met Tyr Lys Glu Ile Gly Ile Ala Val Asp Val Thr Ser Ala 275 280 285

Leu Ala Phe Phe Asn Ser Cys Leu Asn Pro Met Leu Tyr Val Phe Met 290 295 300

Gly Gln Asp Phe Arg Glu Arg Leu Ile His Ala Leu Pro Ala Ser Leu 305 310 315 320

Glu Arg Ala Leu Thr Glu Asp Ser Thr Gln Thr Ser Asp Thr Ala Thr
325 330 335

Asn Ser Thr Leu Pro Ser Ala Glu Val Ala Leu Gln Ala Lys Cys 340 345 350